COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

This publication outlines responsibilities and procedures for managing the implementation of the provisions for the "Guidelines for Public Access Defibrillation (PAD) Programs in Federal Facilities." This publication requires the collection and or maintenance of information protected by the Privacy Act (PA) of 1974. The authorities to collect and or maintain the records prescribed in this publication are 10 U.S.C.8013, Secretary of the Air Force: powers and duties and or Executive Order 9397 (SSN). Forms affected by the PA have an appropriate PA statement. System of records notice F033 ARPC B applies.

1. Purpose: This publication provides guidance for the deployment of Automated External Defibrillators (AED) within buildings at Dover Air Force Base (DAFB). The AED is to be used for an emergency response to Sudden Cardiac Arrest (SCA), as a means to decrease premature mortality. This instruction shall further identify and delineate the lines of responsibility and provide general guidelines to ensure an appropriate response to initiate such a program.

2. Scope: This document describes the role and responsibilities deemed necessary to ensure the broadest training and application of the AED. The scope of training and use is applicable to all federal employees and active duty personnel at DAFB.

3. Roles and Responsibilities:

3.1. Wing Commander:

3.1.1. Ensures each organization has appointed individuals to meet the functional recommendations set forth in this document.

3.1.2. Provides the necessary resources to ensure total organizational compliance with the AED program.

3.2. Medical Group Commander (MDG/CC):

3.2.1. The MDG/CC has ultimate *medical* responsibility for all medical aspects of the PAD program.

3.2.2. Appoints a physician Medical Director.

3.3. Medical Director:

3.3.1. The Medical Director has direct *medical* oversight over the entire PAD program and its participants.

3.3.2. The Medical Director will have general responsibilities that include the establishment and maintenance of the "AED-Chain of Survival" and "Post-Use Procedure" guidelines included in this document (**Attachment 2** and **Attachment 3**).

3.3.3. Assesses quality assurance, compliance to developed protocols, and continuation of proper training.

3.3.4. Critically reviews all recorded data cards and actions taken each time an AED is used.

3.4. Unit Commander:

3.4.1. The commander of each unit shall appoint an AED Coordinator who will serve as the primary liaison between the local organization's AED program and the Base Medical Director.

3.4.2. The PAD program is not a "medical" program. It is a "user" program. Therefore, each unit commander is responsible to ensure funds for the purchase, reuse supplies, and long-term training on the AED.

3.4.3. Each unit commander has full authority to purchase and implement any number of AED's, as they desire IAW paragraph **4.1.** below. At their discretion, they may purchase more or less than the number of AED's that were originally recommended on the base assessment conducted in January 2003. However, it is best to at least implement the minimum as recommended in the initial base assessment.

3.5. AED Coordinator:

3.5.1. Shall be a member of the local organization where the AED is deployed.

3.5.2. Is responsible for completing a facility site assessment.

3.5.3. Is responsible for the maintenance (daily visual check of flashing light) of the AED to ensure its readiness for proper function.

3.5.4. Is responsible for the re-stocking of accessory supplies after a unit is used in an emergency situation. (**Attachment 3**).

3.5.5. Follows the manufacturer's suggested maintenance protocol.

3.5.6. Ensures Basic Cardiac Life Support (BCLS) training of the organization's members via the established training policy.

3.5.7. Once an AED has been used in an emergency situation, the AED coordinator/designee will immediately complete the AED Coordinated Report for Medical Director (**Attachment 5**), and forward it to the Medical Director for review. The Medical Director should receive the completed report within one duty day of when the AED was deployed.

3.5.8. Arrange for Critical Incident Stress Management (CISM) debriefing sessions to be offered for all individuals involved in providing assistance in an emergency situation (**Attachment 6**).

3.6. Responders:

3.6.1. Responders are individuals who are trained in BCLS and who will respond to an emergency. Their training will be provided by the SaraMed contractor in accordance with the American Heart Association guidelines.

3.6.2. Trained responders should follow the protocol in an emergency situation as depicted in the "AED Treatment Algorithm" (**Attachment 4**).

4. AED Selection:

4.1. There are various companies that offer different types of AEDs, each with a wide range of capabilities as well as price. It is recommended that the installation designate and purchase a single model for use on the entire installation. It will be much easier to familiarize responders with a single unit's operation and maintenance. Specifically, DAFB will implement/use the Samaritan Automated External Defibrillator, no ECG/EKG read out, which is manufactured by Phillips Company and distributed by SaraMed Corporation.

5. AED Location and Installation:

5.1. The essential key to surviving a heart attack is early defibrillation. Therefore, AEDs must be strategically placed throughout the organization based upon the time to initial shock of a victim of SCA.

5.2. A facility site assessment should be accomplished to determine the number of AEDs that are necessary as well as their placement within your building. Consult your Occupational Medicine Specialist or Chief of Flight Medicine for assistance.

5.3. Factors to consider in determining AED placement include the following:

5.3.1. Facility size and or accessibility

5.3.2. Number of employees in the facility.

5.3.3. Identified "High Risk" environments.

5.3.4. Number of people that may have public access to the facility on a daily basis.

5.3.5. Average age of the facility occupants.

5.3.6. Incidence of heart disease given the population at hand.

5.3.7. Emergency response protocol that may already be in place for your facility, keeping in mind that it is the time to initial shock that produces optimal outcomes.

5.4. In order to achieve complete area coverage within a building, an AED should be positioned no more than one minute's travel time (one way) from any given point within the building.

5.5. Optimal response time from the identification of a person "down" to the arrival of AED *on-scene* is three minutes or less.

5.5.1. Optimal response time from the identification of a person down to the *delivery* of a shock (i.e. drop-to-shock) should be less than 5 minutes.

5.6. An event timeline for a responder should ideally be as follows:

    5.6.1. Minute #1:

    5.6.2. Discovery of "downed" victim: Initiate Chain of Survival (**Attachment 2**); Activate 9-1-1

    5.6.3. Decision to retrieve AED

    5.6.4. Identify closest AED

5.7. Minute #2 & #3:

    5.7.1. Retrieval of AED (round trip)

5.8. Minute #4:

    5.8.1. Re-familiarization with AED instructions

    5.8.2. Preparation of victim and application of chest pads

    5.8.3. Detection of shockable rhythm

    5.8.4. Delivery of shock

5.9. AED accessory kits should be packed with the AED so that the responder will not lose time deciding what to take to the emergency. These kits should provide items such as gloves, scissors, razor, tape, extra electrodes, and a barrier mask (**Attachment 3**).

5.10. AED's should be stored in such a way that an alarm is activated when the unit is removed for use. This can be set up as a central alarm, whereby the local EMS is automatically notified, or as a local sounding alarm that can draw assistance to the scene.

                                   JOHN I. PRAY, JR., Colonel, USAF
                                   Commander, 436th Airlift Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

Guidelines for Public Access Defibrillation Programs in Federal Facilities, January 18, 2001, Department of Health and Human Services (DHHS)

Public Law 106-505, Public Health Improvement Act of 2000, Title IV, Subtitle A, Cardiac Arrest Survival Act (CASA); (H.R. 2498)

Public Law 106-129, 42 U.S.C. 241 note, Healthcare Research and Quality Act of 1999, Section 7

42 D.S.C., Public Health Service Act, Section 238, 247, 248: Title 2, Part B

Marenco J, Wang P, et al: Improving Survival from Sudden Cardiac Arrest; The Role of the Automated External Defibrillator. JAMA 2001, Mar 7; p 1193 – 1200

Abbreviations and Acronyms

AED—Automated External Defibrillators

BCLS—Basic Cardiac Life Support

CISM— Critical Incident Stress Management

DAFB—Dover Air Force Base

ECG/EKG—Electrocardiogram

MDG/CC—Medical Group Commander

PAD—Public Access Defibrillators

SCA—Sudden Cardiac Arrest

Terms

Automated External Defibrillator (AED)—A defibrillator device that is: (1) Commercially distributed in accordance with the Federal Food, Drug, and Cosmetic Act. (2) Capable of recognizing the presence or absence of ventricular fibrillation or ventricular tachycardia, and is capable of determining, without intervention by the user of the device, whether defibrillation should be performed. (3) Able to deliver an electrical shock to an individual upon determining that defibrillation should be performed.

Basic Cardiac Life Support (BCLS)—A training program that teaches *basic* CPR techniques as well as AED use.

Cardio-Pulmonary Resuscitation (CPR)—The act of providing respiratory ventilation and heart (cardiac) compression by an external source. This most commonly is provided to an individual whom is without both spontaneous respiration and heartbeat, and is provided by someone capable of performing the required mechanical action.

Defibrillation—The application of an electric shock, via a defibrillator, directly through a person's chest.

Emergency Medical Services (EMS)—The term used to describe the rapid response team of medically

trained personnel to provide emergency medical assistance as necessary.

Federal Building—A building or portion of a building leased or rented by a federal agency, which includes buildings on military installations of the United States.

Harm—For purposes of this document, this term may include physical, non-physical, economic, and non-economic losses.

Perceived Medical Emergency—When circumstances exist whereby the behavior of an individual leads a reasonable person to believe that the individual is experiencing a life threatening condition that requires an immediate medical response.

Pulseless Ventricular Tachycardia—An abnormal cardiac rhythm that is incompatible with life if not immediately treated. (Hereafter referred to as heart attack)

Sudden Cardiac Death (SCD) / Sudden Cardiac Arrest (SCA)—The term used to describe an abrupt cessation of normal cardiac function that typically results from ventricular fibrillation or pulseless ventricular tachycardia with rapid progression to death if not immediately treated.

Ventricular Fibrillation—An abnormal cardiac rhythm that is incompatible with life if not immediately treated. (Hereafter referred to as heart attack)

Attachment 2

AED CHAIN OF SURVIVAL

A2.1. In Case of Emergency, Initiate Chain of Survival.

A2.2. Activate 9-1-1.

A2.2.1. Assess scene safety.

A2.2.2. Assess responsiveness. Tap shoulder and shout, "Are you OK?"

A2.2.3. Activate emergency response plan.

A2.2.4. Check Airway, Breathing, and Circulation (ABCs).

A2.2.5. Assess Airway. Perform head tilt, chin lift to open airway.

A2.2.6. Assess Breathing. Look, listen, and feel. If breathing absent, use protective airway mask and deliver two rescue breaths.

A2.2.7. Assess Circulation. Check for signs of circulation. If pulse is absent begin CPR.

A2.3. Early CPR (for one rescuer).

A2.3.1. Perform CPR until an AED arrives.

A2.3.2. Compress and release chest 15 times (Rate; 100 compressions/minute).

A2.3.3. Ventilate. Gives 2 rescue breaths.

A2.3.4. Continue CPR; 15 compressions/2 rescue breaths. Check for signs of circulation after 4 cycles and every few minutes thereafter.

A2.4. Early Defibrillation.

A2.4.1. When AED arrives:

A2.4.1.1. Place the AED near the head of the patient on the same side as the rescuer.

A2.4.1.2. Turn on the AED.

A2.4.1.3. Prepare the "bare" chest.

A2.4.1.4. Cut or tear away clothing.

A2.4.1.5. If chest hair is excessive, shave or clip.

A2.4.1.6. If chest wall is wet, dry it before placing electrode pads.

A2.4.1.7. Follow the AED's verbal and visual prompts.

A2.4.1.8. Apply electrodes.

A2.4.1.9. Allow the AED to analyze.

A2.4.1.10. If indicated, deliver shock by pressing the illuminated shock button.

A2.4.1.11. Continue care per the AED Treatment Algorithm.

A2.5. Early Advanced Care Life Support.

A2.5.1. Have a designated person wait for EMS providers at the front entry of main building and help guide them through security doors to the patient.

A2.5.2. Individuals working on a patient should communicate information to the EMS providers such as:

A2.5.2.1. Victim/patient name

A2.5.2.2. Any known medical problems or allergies

A2.5.2.3. Time victim was found

A2.5.2.4. Initial and current condition of the victim

A2.5.2.5. Information from the AED, such as number of shocks delivered

A2.5.2.6. Assist EMS personnel as necessary

Attachment 3

POST-USE PROCEDURE

A3.1. Responder: AED Post-use Procedure

A3.1.1. The AED Coordinator will do the following after any AED use:

A3.1.1.1. Notify Medical Director via the written "AED Coordinated Report for Medical Director".

A3.1.1.2. Remove used PC data card and replace it with a spare PC card. Label used PC data card with patient identification information and deliver it to the Medical Director with the report listed above.

A3.1.1.3. Conduct employee (CISM) debriefing if deemed necessary.

A3.1.1.4. Restock any used electrode pads, batteries, razors or gloves. Inspect unused supplies for any damage or expiration dates.

A3.1.1.5. Remove and replace battery in the AED and perform a Battery Insertion Test (BIT), according to unit manual, prior to replacing the AED back into service.

A3.1.1.6. Clean the AED. Review specific User's Guide for list of appropriate cleaning agents.

A3.2. Regular Maintenance.

A3.2.1. Daily and After Each Use.

A3.2.1.1. Check the Status Indicator. Verify the light settings that indicate the unit is ready to use. Consult your User's Guide for the specifics regarding the meaning of your lighting configuration.

A3.2.1.2. Ensure all supplies, accessories and spares are present and are in operating condition.

A3.2.1.3. Check expiration dates and any obvious signs of damage to the unit.

A3.3. Weekly.

A3.3.1. Inspect the exterior and pad connectors for signs of damage.
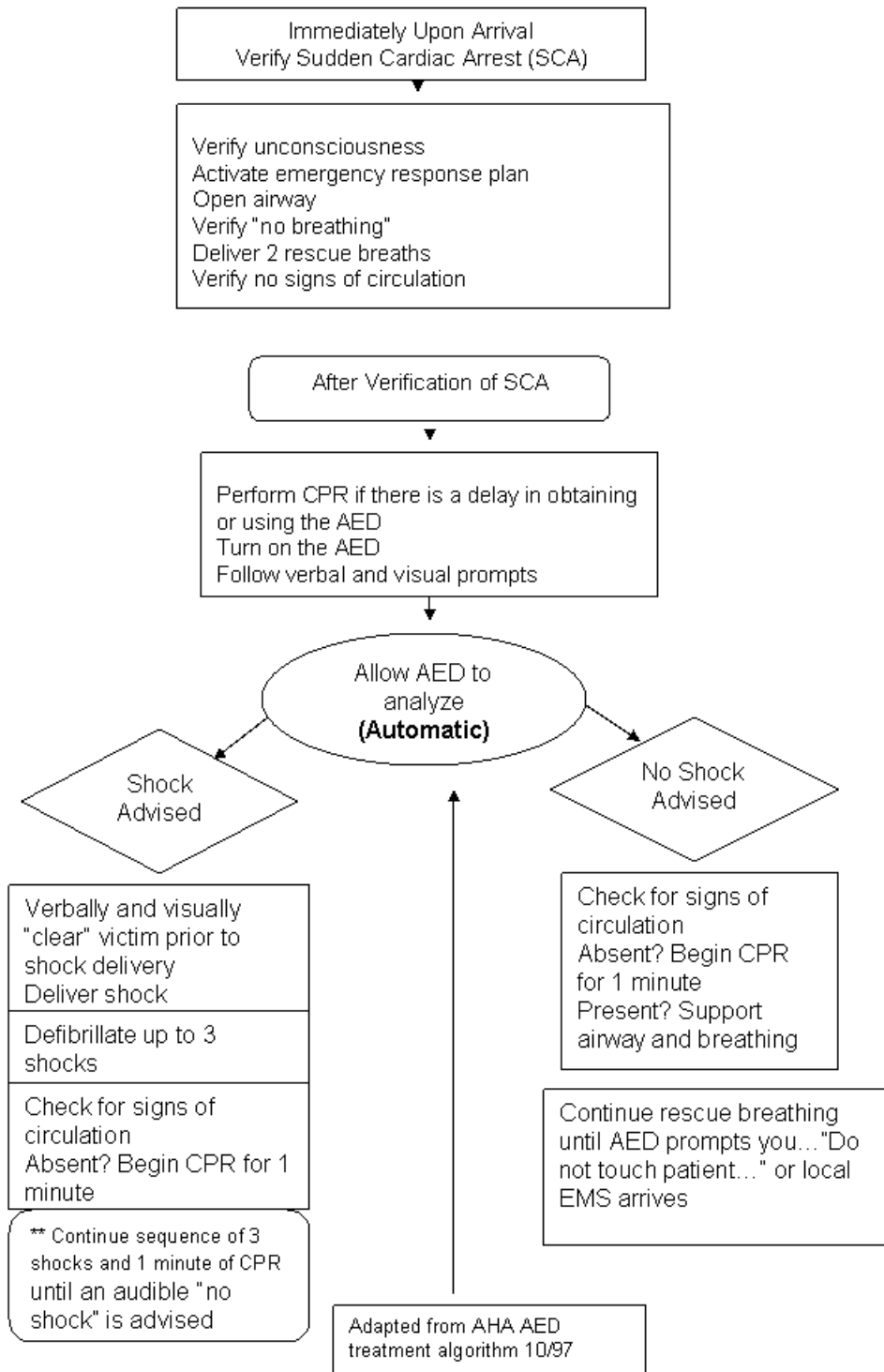
A3.4. After Each Use.

A3.4.1. Inspect the exterior and pad connectors for dirt or contamination.

A3.4.2. Check status indicator. Perform a Battery Insertion Test (BIT) to confirm the power source is ready to be put back in service.

A3.4.3. Replace PC data card.

Attachment 4

AED TREATMENT ALGORITHM

Immediately Upon Arrival
Verify Sudden Cardiac Arrest (SCA)

Verify unconsciousness
Activate emergency response plan
Open airway
Verify "no breathing"
Deliver 2 rescue breaths
Verify no signs of circulation

After Verification of SCA

Perform CPR if there is a delay in obtaining
or using the AED
Turn on the AED
Follow verbal and visual prompts

Allow AED to
analyze
(Automatic)

Shock
Advised

No Shock
Advised

Verbally and visually
"clear" victim prior to
shock delivery
Deliver shock

Defibrillate up to 3
shocks

Check for signs of
circulation
Absent? Begin CPR for 1
minute

** Continue sequence of 3
shocks and 1 minute of CPR
until an audible "no
shock" is advised

Check for signs of
circulation
Absent? Begin CPR
for 1 minute
Present? Support
airway and breathing

Continue rescue breathing
until AED prompts you…"Do
not touch patient…" or local
EMS arrives

Adapted from AHA AED
treatment algorithm 10/97

Attachment 5

AED COORDINATED REPORT FOR MEDICAL DIRECTOR

Please initial all restorative/corrective action items listed below:

_____ Remove used PC Card, label it with patient ID (Name: last, first; (last four SSN), and replace AED unit with a spare PC card.

_____ Follow attached Post-Use Procedure guide to restore AED unit back to ready state.

_____ Replace/Restock any accessory items as necessary.

_____ Deliver used PC Card _AND_ this checklist to the AED Medical Director for review and filing within one (1) duty day.

_____ Schedule/Conduct Critical Incidence Stress Management (CISM) debriefing as determined necessary by the AED Coordinator.

CISM debriefing planned? _____ **(date)** _____

CISM debriefing conducted? _____ **(date)** _____

_____

Incident Details

Date incident occurred: _____

Time incident occurred: _____

Location incident occurred: _____

Time (EMS) called: _____

Time AED placed on patient: _____

Time EMS arrived on scene: _____

Were AED shocks administered? (circle one):   YES   NO   Don't Know

If yes, how many shocks? _____

_____

Patient Information (if known)

Name (Last, First, MI):   _____

Male / Female (circle one)

Age: _____

Last Four of SSN: _____

Assigned unit: _____

Branch of Service/Civilian: _____

Date of Birth: _____

Phone number: _____

Home address: _____

_____

Name of AED Coordinator:

Print: _____

Signature: _____

Initials: _____

Duty Phone: _____

Date this checklist is sent to the AED Medical Director: _____

This checklist contains Personal Data which must be protected IAW DoD 5400.11R, and is For Official Use Only (FOUO) - Privacy Act of 1974 Applies (10 USC 8013)

Attachment 6

CRITICAL INCIDENT STRESS MANAGEMENT (CISM) INFORMATION

A6.1. What is Critical Incident Stress Management?

A6.1.1. It is a comprehensive system of crisis intervention designed to assist individuals and groups affected by traumatic events (natural disasters, terrorist events, suicides, death - either accidental or intentional).

A6.2. What events might precipitate a request for CISM services?

A6.2.1. Many types of events have the potential to produce individual and community traumatic stress. Events include: large scale disasters (tornadoes, bombings, hurricanes, etc) and small-scale disasters (suicide, death or near-death of coworker, workplace violence event, etc). CISM services will be provided after traumatic events to help those who have experienced the events. The goal is to assist those affected by traumatic events to cope with the normal stress reaction in an effective manner. These actions are intended to minimize the impact of exposure to these events and prevent or mitigate permanent disability if possible.

A6.3. What is the procedure for requesting CISM services?

A6.3.1. The office of record for CISM services is the Life Skills Support Center (677- 2674). Please address any inquiries about CISM services to the Chief of the CISM team.